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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NENAD RIJAVEC

Appeal 2009-003279
Application 10/065,745
Technology Center 2600

Decided: January 4, 2010

Before ALLEN R. MACDONALD, ROBERT E. NAPPI, and KARL D.
EASTHOM *Administrative Patent Judges.*

NAPPI, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 6(b) of the rejection of claims 1 through 11.

We affirm.

INVENTION

The invention is directed to a high speed print controller which makes use of cheap off the shelf processors. See paragraphs 0009 and 0010 of Appellant's Specification. Claim 1 is reproduced below:

1. An apparatus comprising:
 - a pipeline of elements processing print control data and having:
 - a plurality of print head drivers, each of which controls the application of colorant to a sheet and has an input port receiving data signals;
 - a plurality of raster image processors, each of which has an output port communicating with the input ports of said plurality of print head drivers to deliver thereto data signals controlling the application of colorant to a sheet and an input port receiving parsed page data; and
 - a sequencer which has an output port networked and communicating with, and directly connected to, the input ports of said plurality of raster image processors and an input port receiving a print data stream, said sequencer monitoring data flows among the pipelined elements and parsing a print data stream into local data portions related to individual pages and global state data portions related to characteristics shared across a plurality of pages, said sequencer packaging together parsed page local and global state data portions;
 - said raster image processors processing in parallel packaged parsed page data related to a plurality of pages and generating data signals to be communicated to said print head drivers as directed by said sequencer.

REFERENCES

Hohensee	US 5,946,460	Aug. 31, 1999
Fujii	US 6,315,390 B1	Nov. 13, 2001
Venkateswar	US 6,532,016 B1	Mar. 11, 2003
Barry	US 6,825,943 B1	Nov. 30, 2004

REJECTIONS AT ISSUE

The Examiner has rejected claims 10 and 11 under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement. The Examiner's rejection is on page 3 of the Answer.¹

The Examiner has rejected claim 9 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Examiner's rejection is on page 3 of the Answer.

The Examiner has rejected claims 1 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Barry in view of Fuji. The Examiner's rejection is on pages 4 through 6 of the Answer.

The Examiner has rejected claims 2, 6 through 11 under 35 U.S.C. § 103(a) as being unpatentable over Barry in view of Fujii and Venkateswar. The Examiner's rejection is on pages 6, and 9 through 12 of the Answer.

The Examiner has rejected claims 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Barry in view of Fujii and Hohensee. The Examiner's rejection is on pages 7 through 9 of the Answer.

¹ Throughout the opinion we refer to the Answer mailed April 10, 2008.

ISSUES

Rejection of claim 9 under 35 U.S.C. § 101

Appellant argues on pages 7 and 8 of the Appeal Brief² that the Examiner's rejection of claim 9 is in error. Appellant argues that contrary to the Examiner's statements in the Final Rejection (mailed May 18, 2007) and Advisory action (mailed July 24, 2007), claim 9 recites a "computer program product comprising a computer readable medium with program instructions stored thereon" and as such recites a recordable medium and not just a computer program or a "carrier wave" signal. App. Brief 7-8, Reply Brief 1-2. Appellant concludes that the claim is drawn to statutory subject matter.

Thus, Appellant's contentions with respect to the rejection of claim 9 under 35 U.S.C. § 101 present us with the issue: has Appellant shown that the Examiner erred in concluding that claim 9 recited a computer program per se or a program as data embodied in a carrier wave.

Rejection of claims 10 and 11 under 35 U.S.C. § 112 first paragraph

Appellant argues on pages 8 through 10 of the Appeal Brief, that the Examiner's rejection of claims 10 and 11 under 35 U.S.C. § 112 first paragraph is in error. Appellant argues that claims 10 and 11 are enabled. App. Brief 8-10, Reply Brief 2-3. Appellant's arguments focus on the Specification's description of how data is sent from the sequencer to the RIP machines. App. Brief 9. Further, Appellant argues that the Examiner should have rejected the claims for being non-enabled but "[n]o such rejection was ever made." Reply Brief 2.

² Throughout the opinion we refer to the Appeal Brief received January 28, 2008 and the Reply Brief received June 9, 2008.

Thus, Appellant's contentions with respect to claims 10 and 11 under 35 U.S.C. § 112 first paragraph do not present us with an issue to consider. We further address this in our analysis *infra*.

Rejection of claims 1 and 3 under 35 U.S.C. § 103(a).

On pages 10 through 13 of the Appeal Brief, Appellant presents arguments directed to the Examiner's rejection of claims 1 and 3 based upon 35 U.S.C. § 103(a). Appellant argues that the Examiner has equated the claimed sequencer with Barry's instruction operator, item 114, however Appellant argues that Barry does not meet the claimed invention because item 114 is not directly connected to the RIP engines as claimed. App. Brief 11-12. Further, Appellant argues that Fujii does not teach or suggest modifying Barry such that the instruction operator is directly connected to the RIP engines. App. Brief 13.

Thus, Appellant's contentions with respect the Examiner's rejection of claims 1 and 3 present us with the issue: has Appellant shown that the Examiner erred in finding that the combination of Barry and Fujii teaches a sequencer directly connected to an input port of the raster image processors as claimed.

Rejection of claims 10 and 11 under 35 U.S.C. § 103(a).

On pages 10 through 15 of the Appeal Brief, Appellant present arguments directed to the Examiner's rejection of claims 10 and 11 based upon 35 U.S.C. § 103(a). Appellant asserts that Venkateswar teaches that the master processor and the parallel processors, which the Examiner equates to the sequencer and raster image processors are on the same chip,

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and as such one could not add or subtract processors. Further, Appellant argues that by adding or removing processors in Barry's system, paths would need to be added or deleted. App. Brief 14. Accordingly, Appellant argues that the Examiner erred in finding that it is obvious to connect or disconnect raster image processors without changing the sequencer.

Thus, Appellant's contentions with respect the Examiner's rejection of claims 10 and 11 present us with the issue: has Appellant shown that the Examiner erred in finding that the combination of Barry, Fujii, and Venkateswar teach or suggest connecting or disconnecting raster image processors without changing the sequencer as claimed.

Rejection of claims 6 through 9 under 35 U.S.C. § 103(a).

On pages 15 through 17 of the Appeal Brief, Appellant presents arguments directed to the Examiner's rejection of claims 6 through 9 based upon 35 U.S.C. § 103(a). Appellant states that claim 6 recites that the package data stream be provided directly over a network to a plurality of raster image processors. App. Brief 15. Appellant argues that the Examiner has not provided a source for the interpretation of the term "network." App. Brief 16. Further, Appellant argues that Venkateswar does not teach communication over a network as claimed. App. Brief 17, Reply Brief 6

Thus, Appellant's contentions with respect the Examiner's rejection of claims 6 through 9 present us with the issue: has Appellant shown that the Examiner erred in finding that the combination of Barry, Fujii, and Venkateswar fail to teach or suggest communicating queued packaged print data stream data portions directly over a network to a plurality of image processors as recited in claim 6.

Rejection of 5 under 35 U.S.C. § 103(a)

On pages 17 through 18 of the Appeal Brief, Appellant presents arguments directed to the Examiner's rejection of claim 5 based upon 35 U.S.C. § 103(a). Appellant states that the combination of the references do not teach a pipeline of elements connected between a print server and a printer. App. Brief 17. Appellant's arguments state that Fujii teaches a print head driver and that Barry teaches a print job driver, and that these two devices are very different. Further, in response to the Examiner's Answer, Appellant asserts that Barry's control PC, item 1020 of Figure 10, is not a print server as communication is one direction only. Reply Brief. 7

Thus, Appellant's arguments directed to claim 5 present us with the issue: has Appellant shown that the Examiner erred in finding that the combination of Barry, Fujii, and Hohensee teaches a pipeline of elements between a print server and a printer as claimed.

Rejections of claims 2 and 4

On page 19 of the Appeal Brief, Appellant presents arguments directed to the Examiner's rejections of claims 2 and 4 based upon 35 U.S.C. § 103(a). These arguments present us with the same issues discussed above with respect to claim 1.

PRINCIPLES OF LAW

“During examination, ‘claims . . . are to be given their broadest reasonable interpretation consistent with the specification, and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.’” *In re Am. Acad. of Sci. Tech*

Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004)(quoting *In re Bond*, 910 F.2d 831, 833 (Fed. Cir. 1990)); *see also In re Morris*, 127 F.3d 1048, 1053-54 (Fed. Cir. 1997).

“Absent an express definition in their specification, the fact that appellants can point to definitions or usages that conform to their interpretation does not make the PTO’s definition unreasonable when the PTO can point to other sources that support its interpretation.” *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997). “It is the applicants’ burden to precisely define the invention, not the PTO’s.” *Id.*

FINDINGS OF FACT

1. Appellant’s Specification indicates that the invention may be provided as a computer program product. The computer program product may include a computer readable medium such as disks, ROM, RAM, ... etc. with a program stored there on. The computer program product may also be downloaded via signals on a carrier wave. Specification paragraph 0034.
2. Appellant’s Specification identifies that one purpose of the invention is to create a high speed print controller that can use cheap, commonly available commercial off the shelf processors. Specification paragraph 0009.
3. The controller of the Appellant’s invention is designed such that “each controller can be configured, by adding RIP [Raster Image Processor] machines and connecting networks, to suit the needs of each customer.” Specification paragraph 0010.

4. The controller of Appellant's invention includes a sequencer, item 21, which receives from a print server a data stream and repackages the data to be sent to the RIP machines. Specification paragraphs 0023-0026.
5. Barry teaches a system for parallel conversion of a print job. The system uses a plurality of RIP engines each of which processes a portion of the print job. Abstract.
6. Barry's system makes use of an instruction job operator, item 114 of Figure 1a which partitions a received print job into portions which are designated as being processed by selected RIP engines. Col. 4, ll. 34-40.
7. In an alternative embodiment, the instruction job operator, item 114, may provide the entire print job to the RIP engines via a distributor item 118 of Figure 1b. Barry col. 4, ll. 41-48.

ANALYSIS

Rejection of claims 9 under 35 U.S.C. § 101

Appellant has persuaded us that the Examiner erred in concluding that claim 9 recites a computer program per se or a program as data embodied in a carrier wave. The Examiner in rejecting claim 9 finds that it is not drawn to a statutory class of invention as it recites a computer program comprising a computer readable medium and not a computer readable medium storing a computer program. Answer 3. Further, the Examiner, citing paragraph 0034 of Appellant's Specification, finds that the claim encompasses a carrier wave which is not patentable. Answer 12. We disagree with the Examiner's

findings. As pointed out by Appellant, on page 7 of the Appeal Brief, claim 9 recites a “computer program product, comprising a computer readable medium with program instructions stored thereon.” Thus, while Appellant’s Specification describes two embodiments of the computer program product, one being stored, the other transmitted (Fact 1), the scope of claim 9 is limited to the embodiment where the program is stored on the medium. Appellant’s Specification only discloses the use of carrier wave signal as being used in conjunction with the embodiment which involves transmitted instructions and not stored instructions. Thus, we disagree with the Examiner’s conclusion that the claim is not limited to a computer readable medium storing a computer program.

For the aforementioned reasons, Appellant’s arguments have persuaded us that the Examiner erred in concluding that claim 9 recites a computer program per se or a program as data embodied in a carrier wave. Accordingly, we will not sustain the Examiner’s rejection of claim 9 under 35 U.S.C. § 101.

Rejection of claims 10 and 11 under 35 U.S.C. § 112 first paragraph

The Examiner rejected claims 10 and 11 under 35 U.S.C. § 112 for failing to comply with the written description requirement. Appellant’s arguments are directed to the enablement requirement of 35 U.S.C. § 112. Thus, Appellant has not addressed the Examiner’s rejection. Further, the written description requirement is different from the enablement requirement. The written description “serves both to satisfy the inventor’s obligation to disclose the technologic knowledge upon which the patent is based, and to demonstrate that the patentee was in possession of the

invention that is claimed.” *Capon v. Eshhar*, 418 F.3d 1349, 1357 (Fed. Cir. 2005). The “applicant must ‘convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention,’ and demonstrate that by disclosure in the specification of the patent.” *Carnegie Mellon Univ. v. Hoffmann La Roche Inc.*, 541 F.3d 1115, 1122 (Fed. Cir. 2008) (citations omitted). Appellant’s arguments directed to enablement do not show that as of the time of filing one skilled in the art would recognize that the Appellant was in possession of the invention. Accordingly, we sustain the Examiner’s rejection of claims 10 and 11 under 35 U.S.C. § 112 for failing to comply with the written description requirement

Rejection of claims 1 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Barry in view of Fuji

Appellant has not persuaded us that the Examiner erred in finding that the combination of Barry and Fujii teaches a sequencer directly connected to an input port of the raster image processors as claimed. Claim 1 recites a plurality of raster image processors and a sequencer. The claimed sequencer has “an output port networked, and communicating with and directly connected to, the input ports of said plurality of raster image processors.” Thus, claim 1 requires that the output of the sequencer is directly connected to the raster image processors.

The Examiner has found that Barry’s instruction operator, item 114 of Figure 1a, meets the claimed sequencer, and that Barry’s RIP engines meet the claimed raster image processors. Answer 4. We concur with the Examiner’s findings as we find that they are supported by ample evidence.

The Examiner relies upon Barry column 4, lines 34-40 for disclosing that the output of the instruction operator is directly connected the RIP engine.

Answer 4. The Examiner also states that although distributor item 118 routes print job from the instruction operator item 114 to RIP engines, “the sequencer is considered to be directly connected to the RIP engines because there exists a wired connection in which the signal travels from the sequencer to the RIP engines” Answer 13-14. We concur with the Examiner’s findings. Barry teaches that the instruction operator divides the print job into portions which are designated for processing by the selected RIP engines. Facts 5 and 6. Barry teaches that in the alternative the entire print job can be sent in parallel via a distributor item 118. Fact 7. Thus, Barry does not teach that the distributor is necessary to implement the system. Further, we note that Figures 1a and 1b are block diagrams depicting the process performed by Barry’s system and not all of the blocks represent actual machines (e.g. block 104 represents a print file (col. 3, ll. 14), and blocks 140, 144, and 148 represent portions of the print file, col. 5, ll. 7-10, 29-33). Thus, while Figures 1a and 1b depict instruction operator, item 114 in a separate block from distributor item 118, the figures are not conclusive that the Examiner erred in finding that these are merely different processes performed by the same machine (see the Examiner’s example, on page 14 of the Answer, of a modem being part of a computer). Accordingly, Appellant’s arguments have not persuaded us that the Examiner erred in finding that the combination of Barry and Fujii teaches a sequencer directly connected to an input port of the raster image processors as claimed, and we sustain the Examiner’s rejection of claims 1 and 3 under 35 U.S.C. § 103(a).

Rejection of claims 10 and 11 under 35 U.S.C. § 103(a).

Appellant's arguments have persuaded us that the Examiner erred in finding that the combination of Barry, Fujii, and Venkateswar teach or suggest connecting or disconnecting raster image processors without changing the sequencer. Claims 10 and 11 both recite a limitation directed to the sequencer remaining unchanged by raster image processors being connected or disconnected from the sequencer output port. The Examiner, in conjunction with the rejection based upon 35 U.S.C. § 112, stated that "the sequencer must make some accommodation for instructing an added RIP machine which would constitute the sequencer being changed." Answer 13. Thus, the Examiner interpreted the claimed sequencer being unchanged as the sequencer not having any accommodations changed when adding or deleting raster image processors. The Examiner has relied upon Barry's disclosure in column 5, lines 38-45 as teaching this feature. Answer 11, 12, and 14. We disagree with the Examiner's findings as we do not find that they are supported by evidence. Barry's disclosure in column 5 lines 38-45 does not discuss adding or deleting RIP engines, rather this disclosure identifies that the outputs of the RIP engines are provided to a merge block to be merged together and sent to the print engines. Thus, we do not find that the Examiner has demonstrated that the combination of the references teach the features of claims 10 and 11. Accordingly, we will not sustain the Examiner's rejection of claims 35 U.S.C. § 103(a).

Rejection of claims 6 through 9 under 35 U.S.C. § 103(a).

Appellant's arguments have not persuaded us that the Examiner erred in finding that the combination of Barry, Fujii, and Venkateswar teaches or

suggests connecting or disconnecting raster image processors without changing the sequencer as claimed. The Examiner has found that Appellant's Specification contains no definition of the term "network" and the Examiner interprets the term to mean devices that are interconnected. Answer 15. We note that Appellant has not shown that the Specification provides a definition, but rather Appellant asserts that networked arrangements are discussed in paragraphs 0010, 0017, 0018, 00026, 0029 and 0034 of Appellant's Specification. App. Brief 16, fn. 33. While Appellant's arguments criticize the Examiner's interpretation of the claim, Appellant's arguments have not proffered an alternate definition of the term "network" nor has Appellant shown how the Examiner's interpretation is inconsistent with the usage of the term in Appellant's Specification. In the Absence of such argument and evidence we find no error in the Examiner's claim interpretation. Further, Appellant's arguments, on pages 16 and 17 of the Appeal Brief, discuss how Venkateswar's device operates. However, these arguments do not identify an error in the Examiner's finding that Venkateswar does not teach communicating a print data stream between devices that are interconnected (the definition of networked). Rather, it appears that Appellant is asserting a narrower, non-elucidated, definition of network in asserting error. Accordingly, Appellant has not persuaded us that the Examiner erred in finding that the combination of Barry, Fujii, and Venkateswar fail to teach or suggest communicating queued packaged print data stream data portions directly over a network to a plurality of image processors as recited in claims 6 through 9.

Rejection of 5 under 35 U.S.C. § 103(a)

Appellant's arguments have not persuaded us that Examiner erred in finding that the combination of Barry, Fujii, and Hohensee teaches a pipeline of elements between a print server and a printer as claimed. Claim 5 recites "a pipeline of elements connected between a print server and a printer and processing print control data" where one of the elements is "a plurality of print head drivers, each of which controls the application of colorant to a sheet." The Examiner has also found that Barry teaches the claimed pipeline of elements except for the printhead drivers. Answer 4. The Examiner has found that Fujii teaches a plurality of print head drivers as claimed. Answer 5. Appellant's statements bridging pages 18 and 19 of the Appeal Brief show that Appellant considers Fujii's print head driver is the same as the claimed print head driver. Thus, Appellant's arguments differentiating Barry's printer driver and Fujii's printer head driver have not persuaded us of error in the Examiner's rejection as Fujii teaches this feature and Barry, as discussed *infra*, teaches the pipeline as claimed.

The Examiner has found on page 16, that Barry's control PC item 1020 of Figure 10 meets the claimed printer server, and Barry's printer item 1026 meets the claimed printer. Answer 16. Appellant's argument, on page 7 of the Reply Brief that in Barry the communication is unidirectional and that the control PC does not communicate back to the printer 1018 is not persuasive of error. The claim requires the pipeline of data to be from the print server to the printer, thus all that is required is unidirectional communication. Barry teaches that based upon the user's request part of or the entire document may be provided to the printer item 1026 via conversion engines 1028 or 1030 (col. 15, ll. 29-40, 44-55, 1.60- col. 16, 1. 5). Thus,

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Appellant has not persuaded us that the Examiner erred in finding that the combination of references teaches the pipeline of elements as claimed. Accordingly, we sustain the Examiner's rejection of claim 5.

Rejections of claims 2 and 4

As discussed *supra*, Appellant's arguments directed to the Examiner's rejections of these claims present us with the same issues as presented with respect to the rejection of claim 1. As discussed with respect to claim 1, Appellant's arguments have not persuaded us of error in the rejection of claim 1. Accordingly, we similarly are not persuaded of error in the rejection of claims 2 and 4. Thus, we sustain the Examiner's rejections of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Barry in view of Fujii and Venkateswar and claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Barry in view of Fujii and Hohensee.

CONCLUSION

Appellant has not persuaded us of error in the Examiner's rejections of claims 1 through 11.

ORDER

The decision of the Examiner to reject claims 1 through 11 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

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AFFIRMED

ELD

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